REMARKS

Claims 1-19 are pending in this application. Applicants acknowledge that Claims 4, 11, 12 and 14-16 have been withdrawn from consideration herein.

Claims 5 and 10 have been rejected under 35 USC §112, first paragraph, for allegedly failing to contain an enabling disclosure with regard to the limitation of Claim 5 concerning "outputting said level outside", or with regard to the limitation of Claim 10 concerning changing of the method of notifying the driver. In addition, Claims 5 and 10 have been rejected under 35 USC §112, second paragraph based on the alleged lack of clarity of the limitations referred to in the preceding sentence.

In response to these grounds of rejection, Applicants have cancelled Claim 10, and have amended Claim 5 in order to clarify the claim language, which has been amended to read "means for outputting a signal indicative of said level of performance". The latter phraseology is believed to be clear and definite, and is supported by the specification. In particular, the output unit 13 (Figure 8) outputs a signal representing a detection performance level (0, 1 or 2). The detection performance level is determined and output at the detection performance level judgment unit 2. Any external device may utilize the information output in this manner, as a control parameter for vehicle control. In this regard, Applicants refer to the specification at page 20, line 28 to page 21, line 6, and page 22, lines 2-5, as well as Figure 8 of the drawing. Accordingly,

reconsideration and withdrawal of this ground of rejection are respectfully requested.

Claims 1, 2, 5-10 and 18 have been rejected under 35 USC §102(b) as anticipated by Shirai et al, while Claims 3, 13, 17 and 19 have been rejected under 35 USC §103(a) as unpatentable over Shirai et al in view of Morikawa et al. However, for the reasons set forth hereinafter, Applicants respectfully submit that all claims remaining of record in this application distinguish over the cited references, whether considered separately or in combination.

The control apparatus according to the present invention is directed to the control of a vehicle that has a plurality of different vehicle control modes or alarm modes, such as an adaptive cruise control (ACC control unit 5 in Figure 1), a tracking-upon-congestion control unit (unit 6), a headway distance alarm (unit 7) and a collision reduction control unit (unit 8). In any of the control modes or alarm modes, a headway distance is measured by an "obstruction detection means" (10) and the measured headway distance value is used as a parameter for the vehicle control modes or alarm modes. The "means for judging a detection performance level", as recited in Claim 1 detects the performance level of the obstruction detection means (a radar device). (That is, such performance level is classified into one of three ratings 0, 1 and 2.) The level 2 indicates the best performance of the obstruction detection by the radar, while the level 1 indicates a moderate performance and the level 0 indicates poor performance. According to the value of the level, vehicle control modes or alarm modes are individually deactivated or activated by the "means for individually enabling or

interrupting operation" of the various controls. That is, as shown in the table of Figure 2, all of the vehicle control modes and alarm mode are turned on (activated) at the level 2, while the ACC control unit (5) is turned off and the rest of the control units (6,8) and the alarm unit (7) are turned on at level 1. Finally, two control units (5,6) are turned off and the others (7,8) are turned on at the level 0.

The cited Shirai et al reference (U.S. Patent No. 5,710,565) discloses only a single vehicle control mode for controlling throttle or brakes to maintain an inter-vehicle distance to conform to a target value. Shirai et al does not teach any other vehicle control modes or alarm modes. In the latter regard, it is noted that the elements 20a, 18a and 16 in Shirai et al are respectively a throttle actuator, a brake actuator and an automatic transmission control, and are not different vehicle control mode units. In Shirai et al, the inter-vehicle distance control mode is disabled when the weather conditions are unfavorable for detecting a preceding vehicle. Shirai et al does not teach that a plurality (2 or more) of vehicle control modes or alarm modes are provided, and that the controller controls the on-off operation of the vehicle control modes or alarm modes individually based on the detected performance level. In particular, Shirai et al does not contain "means for individually enabling or interrupting operation of said vehicle control or said alarm control in accordance with said detection performance".

Claim 5, on the other hand, recites that the detection performance of the obstruction detection means is determined and classified into at least three

different levels. Shirai et al neither teaches nor suggests such an arrangement. Rather, its suggests only monitoring weather conditions. Accordingly, Applicants respectfully submit that Claim 5 distinguishes over Shirai et al.

Claim 3 of the present application, on the other hand, recites that an RCS (Radar Cross Section) value is determined, and that the detection performance of the obstruction detection means is judged on the basis of the RCS value. The RCS value indicates a reflection factor of an obstruction and is unrelated to the distance from the radar to the obstacle, as is apparent from the description at page 15, lines 8-24, as well as from Equation (2). Accordingly, a stable and reliable determination of the detection performance can be made, regardless of the distance.

The latter feature of the invention is neither taught nor suggested in Shirai et al. In particular, Shirai et al fails to teach that the detection performance is determined by using the RCS value. Rather, Shirai et al merely suggests monitoring of weather conditions. Morikawa et al (U.S. Patent No. 6,147,637), on the other hand, teaches determining a reduced ability to measure a distance to an obstacle by comparing the maximum distance measured by the radar with a given reference value. This technique does not, however, mean that the detection performance for detecting an obstacle is determined by using the RCS value. Rather, as explained above, the RCS value indicates a reflection factor of an obstruction that is independent of the distance of the radar from the obstacle. Accordingly, nothing in Morikawa et al teaches or suggests a

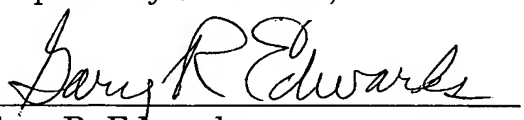
modification of the Shirai et al reference, such as would result in the present invention as defined in Claim 3.

Claims 6 and 7 have been amended to depend from Claim 1. Accordingly, all remaining claims which are under consideration in the present application depend, directly or indirectly, from Claims 1, 3 and 5, and are allowable for the reasons set forth above.

In light of the foregoing remarks, this application should be in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

It is respectfully requested that, if necessary to effect a timely response, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response and shortages in other fees, be charged, or any overpayment in fees be credited, to the Deposit Account of Crowell & Moring LLP, Account No. 05-1323 (Docket #381AS/50959).

Respectfully submitted,



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